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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/682,335	10/08/2003	Nikolai Jitariouk	034299-000538	9839

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EXAMINER

SORKIN, DAVID L

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/682,335

Applicant(s)

JITARIOUK ET AL.

Examiner

David L. Sorkin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 29-45 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 29-45 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 08 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☒ Certified copies of the priority documents have been received in Application No. 09/311,728.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 08 October 2003.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. In Figs. 10 and 11, "FLUIDE" should read "FLUID". In Fig. 4, the reference character "13" (upper occurrence) should be supplied with a lead line or deleted.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The first sentence of the specification, as added in the preliminary amendment filed 08 October 2003 is objected to as falsely stating that 09/311,728 was filed in 29

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October 1997, whereas it was filed 16 August 1999. The following first sentence is suggested:

This application is a divisional of Application No. 09/810,491, filed 19 March 2001, now Patent No. 6,649,058, which is divisional of Application No. 09/331,728, filed 16 August 1999, now Patent No. 6,258,271, which was the National Stage of International Application No. PCT/FR98/02310, filed 28 October 1998.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 29-45 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. These claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification fails to describe in an enabling manner the aspect of claim 29 which is "to provide, between two adjacent hollow membranes and between each hollow membrane and an adjacent side wall of the enclosure, space for circulation of a first fluid uniquely in communication with the inside of the capillary tubes". Instead, in the described invention, it is not the case that for each hollow membrane there is an adjacent side wall such that there is a space therebetween for the fluid that enters the capillaries. As seen in Fig. 4, first considering the left and right to be the "sides" of the enclosure, the spaces to the left and right do not communicate with the capillaries, and

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second, considering the top and bottom to be the "sides" of the enclosure, it is not the case that each hollow fiber membrane has an adjacent side wall of the enclosure.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 29-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear how many hollow membranes are required. In line 2 of claim 29 the phrase "at least one hollow membrane" is recited; however, in line 11 the phrase "two adjacent hollow membranes" is recited. The claim must be amended to make clear how many hollow membranes are required. Also, the scope of the claim is additionally unclear because, though the claim is otherwise an apparatus claim, the claim ends with the recitation of the method steps "circulating said first fluid in the capillary tubes of the hollow membranes by introducing it into one of said circulation spaces and circulating at least one fluid in the internal cavity or cavities of the hollow fiber membrane or membranes". See *Ex Parte Lyell* 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990).

***Claim Rejections - 35 USC § 101***

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 29-45 are rejected under section 101, because as explained in MPEP 2173.05(p)(II) and as held in *Ex Parte Lyell* 17 USPQ2d 1548 (Bd. Pat. App. & Inter.

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1990), claims must be directed to statutory classes of inventions in the alternative only. Instead, though claim 29 is otherwise an apparatus claim, the claim ends with the recitation of the method steps "circulating said first fluid in the capillary tubes of the hollow membranes by introducing it into one of said circulation spaces and circulating at least one fluid in the internal cavity or cavities of the hollow fiber membrane or membranes".

### ***Relationship to Prior Art***

9. While the non-enabled subject matter claimed is not considered anticipated or obvious, the enabled aspects of the claimed invention are disclosed or rendered obvious by the following references: Rogut (US 5,328,610) and Shaw et al. (US 3,764,018). Rogut ('610) discloses a hollow membrane (10) having spaced apart support layers (12,14) and a plurality of capillary tubes (20) arranged between the support layers each having an opening at the level of each of the support layers in such a way as to form capillary channels for the flow of a first fluid, and a space between the capillary tubes and the support layers forming an internal cavity for circulation of a second fluid around the capillary tubes. The hollow membrane is in enclosure (46). Likewise Shaw ('018) discloses a hollow membrane (1) having spaced apart support layers (9) and a plurality of capillary tubes (8) arranged between the support layers each having an opening at the level of each of the support layers in such a way as to form capillary channels for the flow of a first fluid, and a space between the capillary tubes and the support layers forming an internal cavity for circulation of a second fluid around the capillary tubes. The hollow membrane is in enclosure (10). No rejection under

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section 102 or 103 is made because the non-enabled aspect of the claimed invention is not disclosed or rendered obvious by the prior art.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Sorkin whose telephone number is 571-272-1148. The examiner can normally be reached on 9:00 -5:30 Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David L. Sorkin  
Primary Examiner  
Art Unit 1723

DLS